

Nuclear Astrophysics Data Compilation

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Nuclear astrophysics data and references are compiled by the Isotopes Project and disseminated on the Nuclear Astrophysics home page at <http://ie.lbl.gov/astro.html>. The home page provides access to an extensive nuclear astrophysics reference list providing a citations and HTML links to a variety of information of astrophysical interest.

The home page also provides access to charged particle, weak, and neutrino reaction rates compiled by Hoffman and Woosley; Thielemann; Fuller, Fowler and Newman, and Oda *et al.* These data are provided in both text and Adobe Acrobat Portable Document (PDF) format. The website also provides information on upcoming meetings of interest to nuclear astrophysicists and links to related sites.

Effort has also begun to evaluate data necessary for extending the lepton capture and decay rates of Fuller, Fowler, and Newman¹ (A=21-60) to lower masses (A=1-20). We are especially interested in determining the temperature at which ⁷Be, formed in the big bang, will begin to decay. A paper on this subject was presented at the American Astronomical Society 191st Meeting in Washington, DC ².

In 1996 the Nuclear Astrophysics Data Steering Committee prepared a [white paper](#) outlining the need for a nuclear astrophysics data project to provide nuclear data for nuclear astrophysics research. The Isotopes Project submitted a joint proposal, in early 1997, with the Woosley group at UCSC to form a Nuclear Astrophysics Data Center at the Lawrence Berkeley National Laboratory. This center would initially consist of a Postdoc recruited from the nuclear astrophysics research community with supporting effort from the Isotopes Project.

Footnotes and References

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¹G.M. Fuller, W.A. Fowler, M.J. Newman, Ap. J. Suppl. 42 (1980) 447; Ap. J. Suppl. 48 (1982) 279; Ap. J. 252 (1982) 715.

²S. Vahidinia and G. Fuller, American Astronomical Society 191st Meeting, Washington DC, January 6-10, 1998, paper 8.05.